

REMARKS

Claims 1 - 20 remain active in this application. The specification has been reviewed and editorial revisions made where seen to be appropriate. Claims 1, 3 - 5, 9, 11 - 13, and 16 - 18 have been amended to improve form, particularly to improve antecedent language correspondence, and to emphasize novel aspects of the claimed invention. Support for the amendments of the claims is found throughout the application, particularly in Figure 3 and the description thereof on pages 6 - 9. Substantially verbatim support for the amendments to claims 1, 9 and 18 is found at page 7, lines 21 - 25. No new matter has been introduced into the application.

The Examiner has objected to the drawings; requiring a legend such as "Prior Art" be applied to Figure 1. This objection and requirement is respectfully traversed as being moot in view of the above amendment and the concurrently filed replacement drawing sheet. Accordingly, withdrawal of this objection and requirement is respectfully requested.

The Examiner has also objected to the specification; pointing out typographical matters on pages 3 and 6. This objection is also respectfully traversed as being moot in view of the amendments made above. The specification has been reviewed and editorial revisions made where seen to be appropriate, including the matters raised by the Examiner. Accordingly, withdrawal of this objection is respectfully requested.

The Examiner has objected to claims 8 and 17 being identical and to claim 16 as including improper punctuation. This objection is also respectfully traversed as being moot in view of the amendments made above. Claim 17 has been amended to depend from claim 9 and the improper punctuation has been deleted from

claim 16. Accordingly withdrawal of this ground of objection is also respectfully requested.

Claims 1 - 5, 9 - 13, 16 and 18 - 20 have been rejected under 35 U.S.C. §102 as being anticipated by Williams, claims 8 and 17 have been rejected under 35 U.S.C. §103 as being unpatentable over Williams and claims 6 - 7 and 14 - 15 have been rejected under 35 U.S.C. §103 as being unpatentable over Williams in view of Wollesen et al. These grounds of rejection are respectfully traversed.

Initially, it is respectfully submitted that N+ region 208 of Williams is not well-described at a "body control contact" since Williams teaches it to be necessarily connected to the body contact, itself, (see, for example Figures 12C, 21 and 22) for the FET so produced to function as a "pseudo-Schottky diode". That is, region 208, because of its necessary connection for Williams to function in the intended manner, must function as part of the body contact and thus cannot function as a body control contact since it cannot electrically control that to which it is electrically connected.

Further, while Williams may seem superficially similar to the present invention by teaching formation of additional structures in association with and to improve the performance of an FET, Williams is quite different and produces substantially different effects and functions in accordance with entirely different principles from those of the invention. Specifically, the invention provides a very simple structure (compared to Williams) having only a small footprint which allows not only the on-threshold to be reduced (as does Williams) but also allows the off-threshold to be increased while avoiding forward p-n junction leakage or any power supply criticality which can cause increased leakage (which are not achieved by Williams). In accordance with the invention, as discussed on pages

6 - 9 of the specification, the claimed body control contact effectively functions as a gate of a pass transistor to connect and disconnect the FET to and from the voltage supplied at the claimed body contact; causing the FET body to float (e.g. to the source voltage) while in the on-state and reverse biased during the off-state, yielding a low on-threshold and a high off-threshold while providing high on-current and reduced off-current and leakage. Williams, in sharp contrast therewith, teaches the formation of an additional FET configured and connected as a "pseudo-Schottky diode" in order to develop a *specific*, low voltage *forward bias* at the source body junction below the voltage which will cause conduction at that junction but which is sufficient to reduce the switching threshold when the FET of Williams is switched on and the transistor body *shorted to the source* (rather than the body contact, as in the present invention) when the FET of Williams is switched on (see, for example, the Abstract of Williams) to reduce leakage (but does not achieve increase of off-threshold, as achieved by the invention). In summary, while Williams seeks to avoid floating body effects (see the description of Figures 12A - 12C at column 11, line 12+) the invention not only engenders floating body effects or increases resistance to the body contact but exploits such effects to advantage to reduce off-state leakage, especially due to possible power supply criticality, thus reducing power consumption.

Thus, it is respectfully submitted that Williams does not anticipate or provide evidence of a level of ordinary skill in the art which would support a conclusion of obviousness for any modification that answers the recitations of any claim as currently rejected and certainly not as amended above to emphasize the function of the body control contact

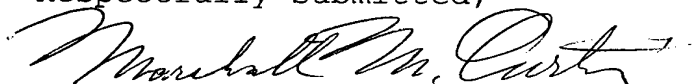
originally recited. It is also respectfully submitted in this regard that no modification of Williams to answer the explicit recitations of the claims would be proper regardless of teachings or suggestions which might be contained in a secondary reference since the intended function of Williams (e.g. to provide a "partial forward bias", particularly using a "pseudo-Schottky diode" developed by an FET connected in a manner contrary to and inconsistent with the claimed body control contact) would be precluded thereby. See for example, *In re Gordon*, 221 USPQ 1125 (Fed. Circ., 1984).

Wollesen et al. is cited only for showing that silicon on insulator (SOI) structures are known in regard to dependent claims directed to the preferred embodiment in which the body control contact can be used to fully deplete the semiconductor layer to meet or merge with the buried oxide layer of the SOI to fully isolate the transistor from the body contact. Even though Wollesen et al. teaches the use of a SOI substrate, no operation of any transistor therein similar to the preferred operation of the preferred embodiment of the invention is seen and none is indicated by the Examiner. Moreover, the Examiner has not indicated that Wollesen et al. supplements the teachings of Williams in any way other than merely indicating that SOI substrates are known, much less mitigating any of the deficiencies of Williams discussed above to answer the explicit recitations of the claims. Therefore, it is respectfully submitted that the Examiner has not made a *prima facie* demonstration of anticipation or obviousness of any claim and the asserted grounds of rejection are in error and untenable. Accordingly, reconsideration and withdrawal of the asserted grounds of rejection are respectfully requested.

Since all rejections, objections and requirements contained in the outstanding official action have been fully answered and shown to be in error and/or inapplicable to the present claims, it is respectfully submitted that reconsideration is now in order under the provisions of 37 C.F.R. §1.111(b) and such reconsideration is respectfully requested. Upon reconsideration, it is also respectfully submitted that this application is in condition for allowance and such action is therefore respectfully requested.

If an extension of time is required for this response to be considered as being timely filed, a conditional petition is hereby made for such extension of time. Please charge any deficiencies in fees and credit any overpayment of fees to Deposit Account No. 09-0458 of International Business Machines Corporation (East Fishkill)

Respectfully submitted,



Marshall M. Curtis
Reg. No. 33,138

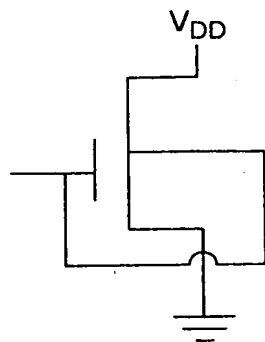
Whitham, Curtis & Christofferson, P. C.
11491 Sunset Hills Road, Suite 340
Reston, Virginia 20190

(703) 787-9400
Customer Number: 30743

Attachments: Annotated and Replacement Drawing Sheet 1

In the Drawings:

Please approve the labeling of Figure 1 as "Prior Art" as illustrated in the substitute sheet of drawings concurrently filed herewith.



PRIOR ART

FIGURE 1

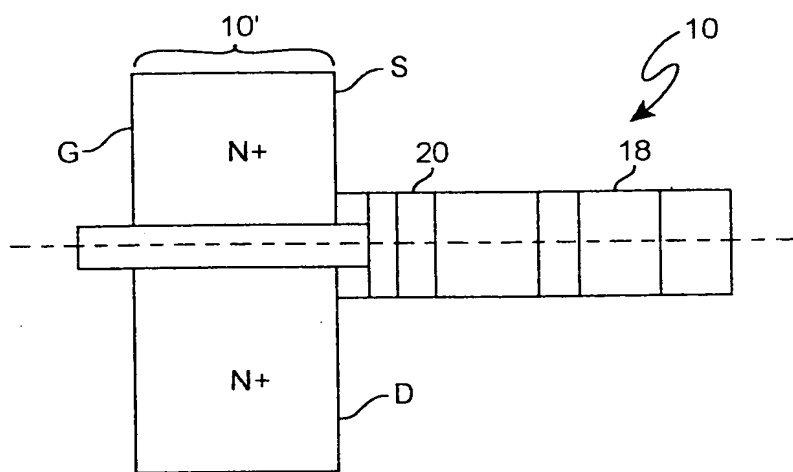


FIGURE 2

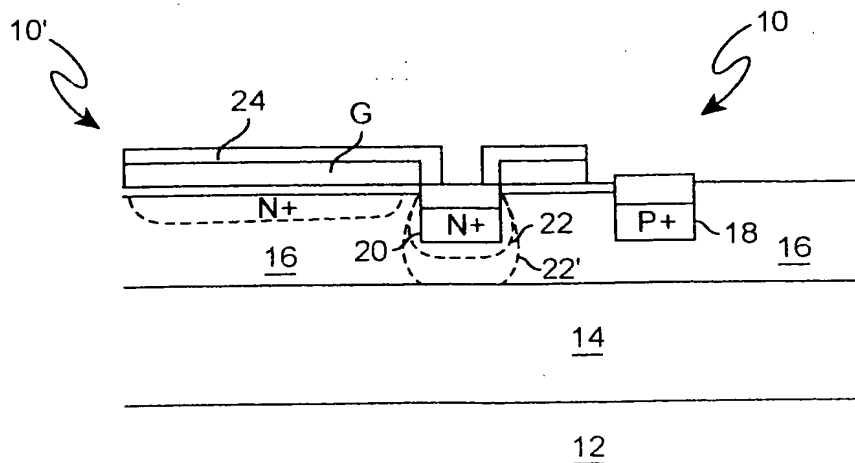


FIGURE 3